**IN THE CLAIMS:**

Please amend the claims as follows:

1. (Currently amended) A method, comprising generating a hybrid spread spectrum signal including: modulating a direct sequence spread spectrum signal by ~~utilizing a subset of bits from a pseudo-random code generator to control an amplification circuit that provides a gain to the signal~~ fast frequency hopping the direct sequence spread spectrum signal, wherein multiple frequency hops occur within a single data-bit time.

2-3. (Canceled)

4. (Currently amended) The method of claim 1, further comprising ~~frequency hopping the signal~~ directly synthesizing a digital signal.

5. (Canceled)

6. (Currently amended) The method of claim ~~4~~ 1, wherein frequency hopping includes frequency sweeping.

7. (Original) The method of claim 1, further comprising time hopping the signal.

8. (Currently amended) The method of claim 1, wherein modulating the signal includes ~~amplitude dithering the signal~~ increasing multipath immunity including controlling a signal amplitude using one or more pseudorandom control codes which are programmably related by one or more relationships selected from the groups consisting of direct subsets, rolling code segments, scrambling of code vectors and table-based reassignments of the bit-pattern relationships.

9. (Original) The method of claim 1, further comprising modulating a polarization of the signal.

10. (Original) The method of claim 9, wherein modulating the polarization of the signal includes controlling feed power levels to antennas of orthogonal polarizations.

11. (Original) The method of claim 1, further comprising transmitting the signal to a radio frequency tag and receiving a transformed version of the signal from the radio frequency tag.

12. (Original) A computer program, comprising computer or machine readable program elements translatable for implementing the method of claim 1.

13. (Cancelled)

14. (Original) An electronic medium, comprising a program for performing the method of claim 1.

15. (Currently amended) An apparatus, comprising a transmitter capable of generating a hybrid spread-spectrum signal including:

a pseudo-random code generator; ~~and~~

~~an amplitude controller coupled to the pseudo-random code generator~~ a fast hopping frequency synthesizer coupled to the pseudo-random code generator;

a master clock coupled to the pseudo-random code generator and the fast hopping frequency synthesizer; and

balanced modulator coupled to the pseudo-random code generator and the fast hopping frequency synthesizer,

wherein multiple frequency hops occur within a single data-bit time.

16. (Currently amended) The apparatus of claim ~~15~~ 19, further comprising an amplification circuit coupled to the amplitude controller.

17. (Currently amended) The apparatus of claim ~~15~~ 19, further comprising a signal attenuator circuit coupled to the amplitude controller.

18. (Currently amended) The apparatus of claim ~~15~~ 16, further comprising ~~a coincidence gate coupled to the pseudo-random code generator and~~ a switch coupled between the coincidence gate and the amplification circuit.

19. (Currently amended) The apparatus of claim 15, further comprising an amplitude controller ~~a fast hopping frequency synthesizer~~ coupled to the pseudo-random code generator.

20-32. (Canceled)

33. (Currently amended) A method, comprising generating a hybrid spread-spectrum signal ~~directly synthesizing a digital signal~~ including:

modulating a polarization of a signal ~~amplitude modulating an in-phase channel with a first four quadrant amplitude multiplier~~; and

frequency hopping the signal, ~~amplitude modulating a quadrature-phase channel with a second four quadrant amplitude multiplier~~

wherein the hybrid spread spectrum signal includes a direct sequence spread spectrum signal.

34. (Currently amended) The method of claim 33, ~~further comprising:~~

~~transforming the in-phase channel with a first equalizer; and~~

~~transforming the quadrature-phase channel with a second equalizer~~ wherein multiple frequency hops occur within a single data-bit time.

35. (Currently amended) The method of claim 34, further comprising:

~~programming the first equalizer; and~~

~~programming the second equalizer~~ directly synthesizing a digital signal.

36. (Currently amended) The method of claim 33, further comprising ~~transmitting the digital signal to a radio frequency tag and receiving a transformed version of the digital signal from the radio frequency tag~~ time hopping the signal.

37. (Currently amended) An apparatus, comprising a transmitter capable of generating a hybrid spread-spectrum signal including: ~~a direct digital synthesizer including a first four-quadrant amplitude multiplier and a second four-quadrant amplitude multiplier, wherein the first four-quadrant amplitude multiplier and the second four-quadrant amplitude multiplier are coupled together in parallel~~

a pseudo-random code generator;

a hopping frequency synthesizer coupled to the pseudo-random code generator;

a master clock coupled to the pseudo-random code generator and the hopping frequency synthesizer;

balanced modulator coupled to the pseudo-random code generator and the hopping frequency synthesizer; and

a splitter coupled to the balanced modulator.

38. (Currently amended) The apparatus of claim 37, further comprising a first ~~equalizer~~ amplitude controller coupled to the ~~first four-quadrant amplitude multiplier~~ pseudo-random code generator and a second ~~equalizer~~ amplitude controller coupled to the ~~second four-quadrant amplitude multiplier~~ pseudo-random code generator.

39. (Currently amended) The apparatus of claim 38, ~~wherein the first equalizer includes a first finite impulse response filter and the second equalizer includes a second finite impulse response filter~~ further comprising an amplification circuit coupled to the first amplitude controller.

40. (Currently amended) The apparatus of claim 39, ~~wherein the first finite impulse response filter is programmable and the second finite impulse response filter is programmable~~ further comprising another amplification circuit coupled to the second amplitude controller.

41. (Currently amended) The apparatus of claim 37, further comprising a logic interface coupled to the ~~integrated circuit~~ hopping frequency synthesizer.

42. (Original) The apparatus of claim 41, wherein the logic interface includes a field-programmable gate array.

43. (Original) An integrated circuit, comprising the apparatus of claim 37.

44. (Original) The integrated circuit of claim 43 further comprising a coupled receiver.

45. (Original) A system, comprising the integrated circuit of claim 44 and a radio frequency tag.

46. (Original) A circuit board, comprising the integrated circuit of claim 43.

47-48. (Cancelled)

49. (Currently amended) A method, comprising generating a hybrid spread-spectrum signal including:

modulating a signal by utilizing a subset of bits from a pseudo-random code generator to control a fast hopping frequency synthesizer; ~~and~~

fast frequency hopping the signal with the fast hopping frequency synthesizer, wherein multiple frequency hops occur within a single data-bit time; and

time hopping the signal.

50. (Canceled)

51. (Currently amended) The method of claim ~~50~~ 49, wherein the hybrid spread spectrum signal includes a direct sequence spread spectrum signal.

52. (Currently amended) The method of claim 49, further comprising ~~time hopping the signal~~ directly synthesizing a digital signal.

53. (Original) The method of claim 49, wherein the fast hopping frequency synthesizer provides a substantially constant envelope signal.

54. (Original) The method of claim 49, wherein fast hopping includes frequency sweeping.

55. (Currently amended) The method of claim 49, wherein modulating the signal includes ~~amplitude dithering the signal~~ increasing multipath immunity including controlling a signal amplitude using one or more pseudorandom control codes which are programmably related by one or more relationships selected from the groups consisting of direct subsets, rolling code segments, scrambling of code vectors and table-based reassignments of the bit-pattern relationships.

56. (Original) The method of claim 49, further comprising modulating a polarization of the signal.

57. (Original) The method of claim 56, wherein modulating the polarization of the signal includes controlling feed power levels to antennas of orthogonal polarizations.

58. (Original) The method of claim 49, further comprising transmitting the signal to a radio frequency tag and receiving a transformed version of the signal from the radio frequency tag.

59. (Original) A computer program, comprising computer or machine readable program elements translatable for implementing the method of claim 49.

60. (Cancelled)

61. (Original) An electronic medium, comprising a program for performing the method of claim 49.

62. (Currently amended) An apparatus, comprising a transmitter capable of generating a hybrid spread-spectrum signal including:

a pseudo-random code generator; ~~and~~

a fast hopping frequency synthesizer coupled to the pseudo-random code generator, wherein multiple frequency hops occur within a single data-bit time;

a master clock coupled to the pseudo-random code generator and the fast hopping frequency synthesizer;

a coincidence gate coupled to the pseudo-random code generator; and

a balanced modulator coupled to the coincidence gate, the pseudo-random code generator and the fast hopping frequency synthesizer.

63. (Original) The apparatus of claim 62, further comprising an amplitude controller coupled to the pseudo-random code generator.

64. (Original) The apparatus of claim 63, further comprising an amplification circuit coupled to the amplitude controller.

65. (Original) The apparatus of claim 63, further comprising a signal attenuator circuit coupled to the amplitude controller.

66. (Original) The apparatus of claim 62, wherein the fast hopping frequency synthesizer provides a substantially constant envelope signal.

67. (Cancelled)

68. (New) The method of claim 33, wherein modulating the polarization of the signal includes controlling feed power levels to antennas of orthogonal polarizations.

69. (New) The method of claim 33, further comprising transmitting the signal to a radio frequency tag and receiving a transformed version of the signal from the radio frequency tag.

70. (New) A computer program, comprising computer or machine readable program elements translatable for implementing the method of claim 33.

71. (New) An electronic medium, comprising a program for performing the method of claim 33.

72. (New) The method of claim 33, wherein modulating the signal includes increasing multipath immunity including controlling a signal amplitude using one or more pseudorandom control codes which are programmably related by one or more relationships selected from the

groups consisting of direct subsets, rolling code segments, scrambling of code vectors and table-based reassignments of the bit-pattern relationships.

73. (New) The apparatus of claim 37, wherein the hopping frequency synthesizer includes a fast hopping frequency synthesizer wherein multiple frequency hops occur within a single data-bit time

74. (New) The apparatus of claim 73, wherein the fast hopping frequency synthesizer provides a substantially constant envelope signal.